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University of California  
College of Agriculture  
Agricultural Experiment Station  
Berkeley, California

SEASONAL LABOR NEEDS FOR CALIFORNIA CROPS

LOS ANGELES COUNTY

Progress Report No. 19

by

R. L. Adams

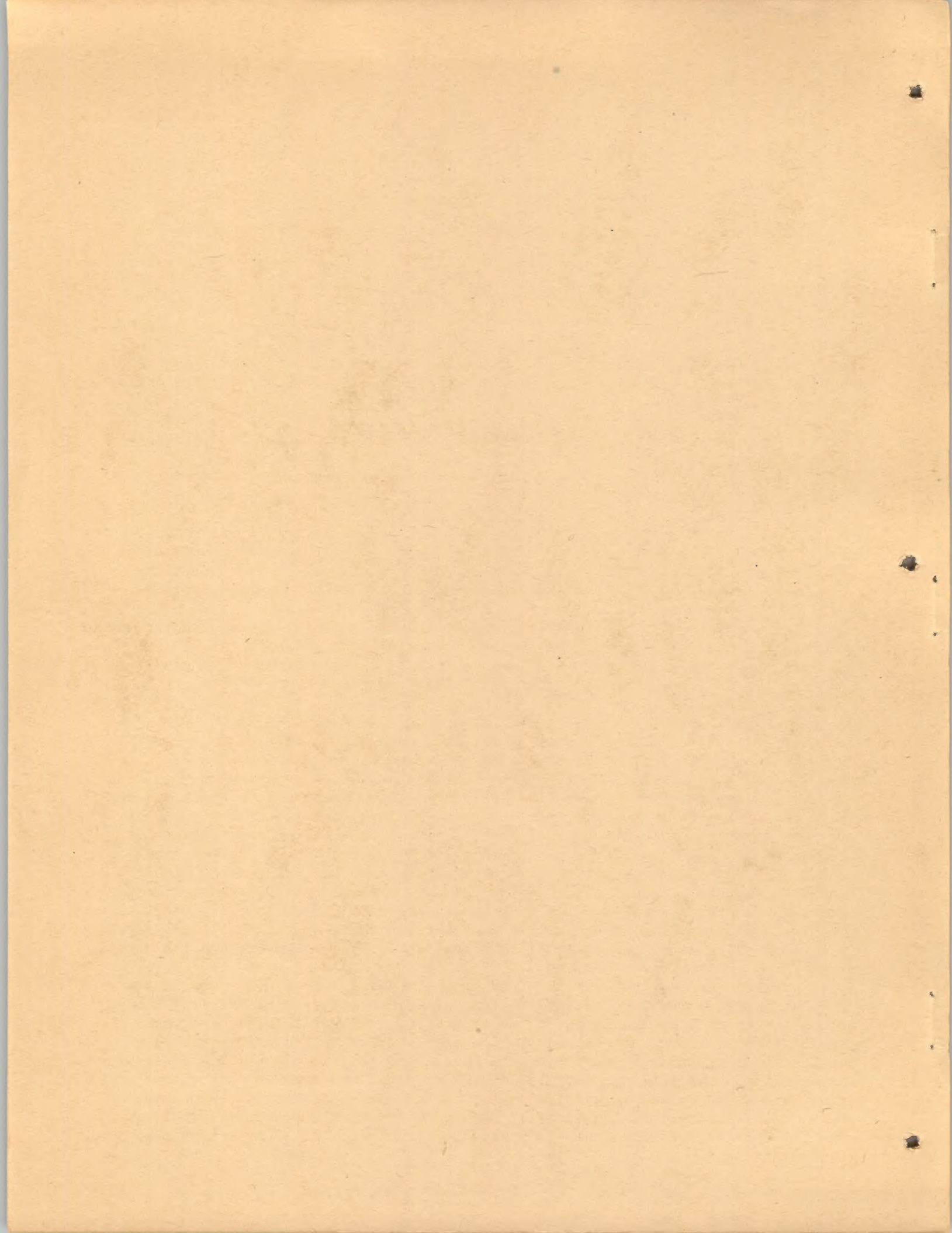
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June, 1936

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Seasonal Labor Needs for California Agriculture

Los Angeles County

Scope of Presentation.--- The following considerations govern the presentation of this progress report:

1. The data are confined to the area indicated above.
2. The data are confined solely to crops, livestock needs being ignored.
3. The findings apply only to occasional or seasonal labor requirements as distinguished from labor contributed by farm operators and by workers employed on a year-round or regular basis of employment.
4. Attention is concentrated upon workers required for hand tasks -- planting, thinning, weeding, hoeing, and harvesting -- without including teamsters, tractor drivers, irrigators, hay balers, threshermen, and shed packers of vegetables or fruits.
5. The presentation includes the so-called migratory, transient, or roving workers which comprise an important source of help needed in connection with certain tasks and at "peak" times which seasonally arise in connection with many field, truck, and fruit crops commercially produced in California.
6. This report is confined to California's need for seasonal agricultural workers because of the more pressing problems liable to arise in connection therewith. A later study is planned which will deal with other kinds of labor involved in the production of California's many crops.

Brief Description of the Area.--- Los Angeles County is one of the southern coastal counties of California. Its most southern point is about 100 miles north of the Mexican boundary. On the southwest it borders the Pacific Ocean along a shore line 60 miles or more in length. On the southeast it joins Orange County, and on the east San Bernardino County along a line which extends northward over the San Gabriel Range into the Mojave Desert. On the north it is bounded by Kern County, the boundary running in an east and west direction across the Mojave Desert. On the west it joins Ventura County along a line which runs in a southeasterly direction to the ocean. It is about 60 by 75 miles in extent. Much of its area is rough and mountainous, and the northern portion, excepting a relatively small acreage in Antelope Valley, is desert. The agricultural lands are mostly in the southern part, contiguous to Los Angeles and neighboring cities, and lie between the San Gabriel Mountains and the ocean.

There are several more or less distinct agricultural districts in Los Angeles County. The San Fernando Valley, an inland valley shut off from the ocean on the west by the Santa Monica Mountains, is about 20 miles in length and 8 miles in width. It extends in a northwesterly direction from the city of Los Angeles, and ranges from 450 to about 1,250 feet in elevation. It is an area of intensive farming, devoted largely to field and truck crops, citrus fruit and walnuts, and is contiguous to the towns of San Fernando, Van Nuys, Owensmouth, Chatsworth, and others. The soils are mostly recent alluvial of the Yolo series, ranging from sandy loam to clay loam, the lighter textures predominating.



June, 1936

Progress Report #13

Seasonal Labor Needs for California Agriculture

Los Angeles County

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2. The data are confined solely to crops, livestock needs being ignored.
3. The findings apply only to occasional or seasonal labor requirements as distinguished from labor contributed by farm operators and by workers employed on a year-round or regular basis of employment.
4. Attention is concentrated upon workers required for hand tasks—planting, thinning, weeding, hoeing, and harvesting—without including tractors, tractor drivers, irrigators, hay balers, choppers, and shed packers of vegetables or fruits.
5. The presentation includes the so-called migratory, transient, or roving workers which comprise an important source of help needed in connection with certain tasks and at "peak" times which seasonally arise in connection with many field, truck, and fruit crops commercially produced in California.
6. This report is confined to California's need for seasonal agricultural workers because of the more pressing problems liable to arise in connection therewith. A later study is planned which will deal with other kinds of labor involved in the production of California's many crops.

Brief Description of the Area.—Los Angeles County is one of the southern coastal counties of California. Its most southern point is about 100 miles north of the Mexican boundary. On the southwest it borders the Pacific Ocean along a shore line 60 miles or more in length. On the northeast it joins Orange County, and on the east San Bernardino County along a line which extends northward over the San Gabriel Range into the Mojave Desert. On the north it is bounded by Kern County, the boundary running in an east and west direction across the Mojave Desert. On the west it joins Ventura County along a line which runs in a southeasterly direction to the ocean. It is about 60 by 75 miles in extent. Much of its area is rough and mountainous, and the northern portion, excepting a relatively small acreage in Antelope Valley, is desert. The agricultural lands are mostly in the southern part, contiguous to Los Angeles and neighboring cities, and lie between the San Gabriel Mountains and the ocean.

There are several more or less distinct agricultural districts in Los Angeles County. The San Fernando Valley, an inland valley shut off from the ocean on the west by the Santa Monica Mountains, is about 20 miles in length and 8 miles in width. It extends in a northeasterly direction from the city of Los Angeles, and ranges from 450 to about 1250 feet in elevation. It is an area of intensive farming, devoted largely to field and truck crops, citrus fruits and wineries, and is contiguous to the towns of San Fernando, Van Nuys, Glendale, Chatsworth, and others. The soils are mostly recent alluvial of the Yolo series, ranging from sandy loam to clay loam; the higher terraces predominating.



The San Gabriel Valley, from 450 to 1,000 feet in elevation, extending eastward along the southern base of the San Gabriel Mountains for about 20 miles from the vicinity of Pasadena easterly to the San Dimas district, and bounded on the south by the San Jose and Puente Hills, includes a large part of the citrus and walnut acreage of the county, and, in addition, produces a large amount of field and truck crops. Adjacent to this valley on the east and similar in nature is the Pomona district, at the western end of the Cucamonga Plain of San Bernardino County. Another district of similar characteristics surrounds Whittier, which lies just south of the Puente Hills, and at the northeastern edge of the coastal plain. The soils of the San Gabriel Valley are of the lighter textures, from sandy loams to sands, of two or three different series.

The coastal plain, of which Los Angeles County includes an area about 15 by 20 miles in extent, rises with a gentle slope from sea level on the south to an elevation of about 200 feet at its northern edge near the Los Angeles and Puente Hills. A large part of this consists of residential and industrial properties, but considerable portions are used for field and truck crops. In the southern part of this area, the San Pedro Hills rise conspicuously to a height of about 1,500 feet, a short distance west of San Pedro. These hills are noted for the production of string beans, peas, tomatoes, and hay and grain. The soils of the coastal plain are mostly loams and sandy loams.

The Antelope Valley, lying north of the San Gabriel Mountains, is about 40 miles north of Los Angeles, and is from 2,200 to 2,700 feet in elevation. It includes a large area of desert land, only a small portion of which has been reclaimed by irrigation. A part of the valley lies in Kern County. Some farming to grain and deciduous fruits is done without irrigation in a narrow strip close to the mountains on the southern edge of the valley, but the rainfall is light, and irrigation is necessary for most crops. The irrigated areas are scattered, and are mostly located around Lancaster, Palmdale, and Little Rock. Alfalfa hay is the principal product, although grain, pears, almonds, and apricots are also important. The soils of the Antelope Valley are mostly of the lighter textures, ranging from loams to sandy loams and sands, and are classified in several different series.

The county contains an area of 2,633,600 acres, of which 339,085 are classed as "available for crops" by the 1935 Census. This is further classified as follows by the Census for the crop year 1934.

	<u>Acreage</u>
Crop land harvested	261,162
Crop failure	8,402
Crop land idle or in fallow	42,803
Plowable pasture	<u>26,718</u>
Total	339,085



The San Gabriel Valley, from 480 to 1,000 feet in elevation, extending eastward along the southern base of the San Gabriel Mountains for about 20 miles from the vicinity of Pasadena easterly to the San Dimas district, and bounded on the south by the San Jose and Pomona Hills, includes a large part of the citrus and walnut acreage of the county, and, in addition, produces a large amount of field and truck crops. Adjacent to this valley on the east and similar in nature is the Pomona district, at the western end of the Cucamonga Plain of San Bernardino County. Another district of similar characteristics surrounds Whittier, which lies just south of the Pomona Hills, and at the northeastern edge of the coastal plain. The soils of the San Gabriel Valley are of the lighter textures, from sandy loams to sands, of two or three different series.

The coastal plain, of which Los Angeles County includes an area about 15 by 20 miles in extent, rises with a gentle slope from sea level on the south to an elevation of about 300 feet at its northern edge near the Los Angeles and Pomona Hills. A large part of this consists of residential and industrial properties, but considerable portions are used for field and truck crops. In the southern part of this area, the San Pedro Hills rise considerably to a height of about 1,200 feet, a short distance west of San Pedro. These hills are noted for the production of string beans, peaches, tomatoes, and hay and grain. The soils of the coastal plain are mostly loams and sandy loams.

The Antelope Valley, lying north of the San Gabriel Mountains, is about 40 miles north of Los Angeles, and is from 2,200 to 2,500 feet in elevation. It includes a large area of desert land, only a small portion of which has been reclaimed by irrigation. A part of the valley lies in Kern County. Some farming to grain and deciduous fruits is done without irrigation in a narrow strip close to the mountains on the southern edge of the valley, but the remainder is light, and irrigation is necessary for most crops. The irrigated areas are scattered, and are mostly located around Lancaster, Palmdale, and Little Rock. Alfalfa hay is the principal product, although grain, peaches, almonds, and apricots are also important. The soils of the Antelope Valley are mostly of the lighter textures, ranging from loams to sandy loams and sands, and are classified in several different series.

The county contains an area of 2,632,600 acres, of which 532,088 are classed as "available for crops" by the 1932 Census. This is further classified as follows by the Census for the crop year 1934:

Average	
Crop land harvested	281,182
Crop fallow	8,402
Crop land idle or in fallow	42,302
Available pasture	23,718
Total	332,088



Crop acreages in 1935 are estimated to have been as follows:✓

	<u>Acreage</u>
Field crops✓	98,400
Truck crops	36,800
Market gardens	11,900
Orchards (bearing) citrus	56,412
other fruits and nuts	41,362
berries	<u>1,865</u>
Total	246,759

Crops, Acreage, and Production.--- The basis used in calculating occasional or seasonal need for labor in addition to that furnished by farm operators and regularly employed workers appears as table 1.

TABLE 1

Basis for Calculating Seasonal Labor Requirements -- Los Angeles County

Crops	Acreage	Production
Field crops:		
Alfalfa hay	30,000	180,000 tons
Beans -- dry	18,000	162,000 cwt.
Bean straw	---	7,000 tons
Beets -- sugar	6,500	71,500 tons
Grain* -- (barley 4,551 acres wheat 12,899 acres)	17,712	---
Grain hay*	45,608	53,282 tons
Onions	1,400	266,000 sacks (of 100 pounds)
Potatoes, white	2,800	420,000 sacks (of 100 pounds)
Seed crops (flower seed)	600	---
Vegetable crops:		
Asparagus	1,100	132,000 crates (of 31 pounds)
Beans, snap (green)	4,000	544,000 hampers (of 30 pounds)
Cabbage	2,200	19,800 tons
Carrots	2,400	3,600,000 dozen bunches
Cauliflower	3,000	900,000 crates (39 pounds)
Celery	2,500	1,750,000 one-half crates (65
Chicory	600	96,000 crates pounds) (5 dozen)

Table continued on next page.

✓Data from "Agricultural Crop Report, Los Angeles County 1935" by H. S. Ryan, Agricultural Commissioner.

✓Includes onions and potatoes.



Includes onions and potatoes.

Agricultural Commissioner.

Data from "Agricultural Crop Report, Los Angeles County 1932" by H. S. Ryan.

Table continued on next page.

Crops	Average	Production
Field crops:		
Alfalfa hay	30,000	180,000 tons
Beans - dry	18,000	182,000 cwt.
Bean straw		7,000 tons
Beets - sugar	8,500	71,800 tons
Corn - (barley & oat) - wheat 12,000 acres	17,712	
Grain hay*	48,608	53,282 tons
Onions	1,400	286,000 sacks (of 100 pounds)
Potatoes, white	2,800	420,000 sacks (of 100 pounds)
Seed crops (flower seed)	800	
Vegetable crops:		
Asparagus	1,100	122,000 crates (of 25 pounds)
Beans, snap (green)	4,000	844,000 bunches (of 20 pounds)
Cabbage	2,200	12,800 tons
Carrots	2,400	2,600,000 dozen bunches
Caiflower	2,000	900,000 crates (25 pounds)
Celery	2,800	1,780,000 bunches (12 crates) (50 pounds)
Chicory	800	32,000 crates (2 dozen)

Basis for Calculating Seasonal Labor Requirements - Los Angeles County

TABLE 1

Crops, Average, and Production. - The basis used in calculating seasonal or seasonal need for labor in addition to that furnished by farm operators and regularly employed workers appears as table 1.

Total	240,759
Services	1,362
Other fruits and nuts	41,362
Orchards (bearing) citrus	28,412
Market gardens	17,200
Truck crops	28,800
Field crops	28,400

Crop averages in 1932 are estimated to have been as follows:



Table 1 continued.

Crops	Acreage	Production
Corn (green)	7,000	2,100,000 lugs (3 dozen ears)
Cucumbers	1,000 †	315,000 lugs (32 pounds)
Lettuce	3,000	405,000 crates
Parsley	300	750,000 dozen bunches
Peas	1,600	184,000 hampers (30 pounds)
Peppers	400	106,000 lugs (15 pounds)
Rhubarb	700	840,000 flats (20 pounds)
Tomatoes	7,000 ‡	2,296,000 lugs (32 pounds) market 17,500 tons canning
Market gardens:		
Artichokes	100	11,500 boxes (30 pounds)
Beets	600	540,000 dozen bunches
Broccoli	200	30,000 crates (60 pounds)
Cantaloupes	2,000	500,000 crates (45 pounds)
Chard	100	75,000 dozen bunches
Egg plants	200	100,000 lugs (20 pounds)
Mustard	100	180,000 dozen bunches
Parsnips	200	80,000 lugs (26 pounds)
Potatoes (sweet)	300	160,000 lugs (32 pounds)
Radishes	150	360,000 dozen bunches
Romaine lettuce	150	45,000 crates (3 dozen)
Rutabagas	300	30,000 sacks (100 pounds)
Spinach	1,100	1,362,000 dozen bunches
Squash-summer	1,500	600,000 lugs (26 pounds)
Squash-winter	700	3,850 tons
Turnips	400	360,000 dozen bunches
Watermelons	300	3,600 tons
Miscellaneous	3,000	---
Fruit crops:		
Apples	441	17,600 boxes
Apricots	944	2,800 tons (green)
Almonds	1,008	252 tons
Avocadoes	2,191	4,260,000 pounds
Citrus-Oranges	44,566	10,084,536 packed boxes =15,126,800 field boxes of 50 pounds §
Lemons	11,134	2,065,000 packed boxes of 75 pounds ¶ 1,016,500 packed field boxes to by-products = 4,619,000 field boxes of 50 pounds
Grapefruit	712	344,820 field boxes    of 40 pounds
Figs	772	920 tons
Grapes-table	1,919	4,800 tons
wine	2,550	7,000 tons
raisin	324	

(Table 1 continued on next page)







Table 1 continued.

Crops	Acreage	Production
Olives	1,236	575 tons
Fruit crops:		
Peaches, clingstone	692	1,200 tons
free	986	1,700 tons
Pears	2,481	5,000 tons
Persimmons	226	450 tons
Plums	241	480 tons
Prunes	54	110 tons
Walnuts	25,217	9,473 tons**
Blackberries	150	112,500 trays
Loganberries	15	7,500 trays
Raspberries	400	300,000 trays
Strawberries	700	700,000 trays
Youngberries	600	500,000 trays

\* Data on grain and grain hay are from 1935 Census for the year 1934. Figures for 1935 are not available.

† Includes 513 acres cucumbers for pickling. Total production of these estimated at 2,565 tons.

‡ About 5,672 acres of tomatoes were planted for canning, balance for market or shipping.

§ Orange production is estimated from data from California-Arizona Orange Grapefruit Agency -- 21,828 carloads of 462 packed boxes.

¶ Lemon production includes 2,921 cars sent to by-products.

|| Grapefruit production estimated on basis of 3 field boxes to 2 packed boxes. The production, 180,900 packed boxes, reported by the Agricultural Commissioner is considered to represent 83 per cent of the crop, about 17 per cent of the 1934-5 crop having been sent to by-products, charity or eliminated.

\*\* Data from California Walnut Growers' Association indicate that 31 per cent of the Los Angeles County crop was produced in San Fernando Valley in 1935.

Operations Requiring Use of Seasonal Labor and Times of Need.--- Farm operations requiring use of seasonal or occasional labor for the various crops raised in Los Angeles County are indicated in table 2. This tabulation does not include the employing of shed workers needed to wash, pack, and prepare various commodities for shipping and marketing.



Item	Quantity	Unit Price	Total
1. 1000	1000	1.00	1000.00
2. 500	500	2.00	1000.00
3. 250	250	4.00	1000.00
4. 125	125	8.00	1000.00
5. 62.5	62.5	16.00	1000.00
6. 31.25	31.25	32.00	1000.00
7. 15.625	15.625	64.00	1000.00
8. 7.8125	7.8125	128.00	1000.00
9. 3.90625	3.90625	256.00	1000.00
10. 1.953125	1.953125	512.00	1000.00
11. 0.9765625	0.9765625	1024.00	1000.00
12. 0.48828125	0.48828125	2048.00	1000.00
13. 0.244140625	0.244140625	4096.00	1000.00
14. 0.1220703125	0.1220703125	8192.00	1000.00
15. 0.06103515625	0.06103515625	16384.00	1000.00
16. 0.030517578125	0.030517578125	32768.00	1000.00
17. 0.0152587890625	0.0152587890625	65536.00	1000.00
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19. 0.003814697265625	0.003814697265625	262144.00	1000.00
20. 0.0019073486328125	0.0019073486328125	524288.00	1000.00
21. 0.00095367431640625	0.00095367431640625	1048576.00	1000.00
22. 0.000476837158203125	0.000476837158203125	2097152.00	1000.00
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73. 0.00000000000000000021175823681357508476708062501699104905128525390625	0.00000000000000000021175823681357508476708062501699104905128525390625	4722366482869645213696.00	1000.00
74. 0.00000000000000000010587911840678754238354031250849552452564262890625	0.00000000000000000010587911840678754238354031250849552452564262890625	9444732965739290427392.00	1000.00
75. 0.000000000000000000052939559203393771191770156250424776228221314453125	0.000000000000000000052939559203393771191770156250424776228221314453125	18889465931478580854784.00	1000.00
76. 0.0000000000000000000264697796016968855958850781250212383141106572265625	0.0000000000000000000264697796016968855958850781250212383141106572265625	37778931862957161709568.00	1000.00
77. 0.00000000000000000001323488980084844277974253906250106191570532861328125	0.00000000000000000001323488980084844277974253906250106191570532861328125	75557863725914323419136.00	1000.00
78. 0.000000000000000000006617444900424221389871269531250530957852664306640625	0.000000000000000000006617444900424221389871269531250530957852664306640625	151115727451828646838272.00	1000.00
79. 0.0000000000000000000033087224502121106949356347656250265478926321533203125	0.0000000000000000000033087224502121106949356347656250265478926321533203125	302231454903657293676544.00	1000.00
80. 0.00000000000000000000165436122510605534746781738281250132739461607666015625	0.00000000000000000000165436122510605534746781738281250132739461607666015625	604462909807314587353088.00	1000.00
81. 0.000000000000000000000827180612553027673733908691406250066369730803330078125	0.000000000000000000000827180612553027673733908691406250066369730803330078125	1208925819614629174706176.00	1000.00
82. 0.0000000000000000000004135903062765138368669543457031250033184865401650390625	0.0000000000000000000004135903062765138368669543457031250033184865401650390625	2417851639229258349412352.00	1000.00
83. 0.00000000000000000000020679515313825691843347717285156250016592432708251953125	0.00000000000000000000020679515313825691843347717285156250016592432708251953125	4835703278458516698824704.00	1000.00
84. 0.000000000000000000000103397576569128459216738586425781250008296216351259765625	0.000000000000000000000103397576569128459216738586425781250008296216351259765625	9671406556917033397649408.00	1000.00
85. 0.0000000000000000000000516987882845642296083692932128906250004148108156298828125	0.0000000000000000000000516987882845642296083692932128906250004148108156298828125	19342813113834066795298816.00	1000.00
86. 0.00000000000000000000002584939414228211480418464660644531250002074054281494140625	0.00000000000000000000002584939414228211480418464660644531250002074054281494140625	38685626227668133590597632.00	1000.00
87. 0.000000000000000000000012924697071141057402092323303222656250001037027140745703125	0.000000000000000000000012924697071141057402092323303222656250001037027140745703125	77371252455336267181195264.00	1000.00
88. 0.0000000000000000000000064623485355705287010461616516113281250000518513570372865625	0.0000000000000000000000064623485355705287010461616516113281250000518513570372865625	154742504910672534362390528.00	1000.00
89. 0.00000000000000000000000323117426778526435052308082580566406250000259256785168628125	0.0000000000000000000000032311742677852643505230808258056640625000025925678516		



TABLE 2.

Operations Requiring Use of Seasonal Labor and  
Times of Needs by Crops  
Los Angeles  
County

Crop	Operation	Time of Need
Field crops: Alfalfa	Mowing -- 50 per cent by seasonal workers	May ) June ) five-sixths of July ) acreage each Aug. ) month Sept.)
	Raking -- 50 per cent by seasonal workers	
	Shocking -- 50 per cent by seasonal workers	Oct. )
	Baling -- 50 per cent by seasonal workers (90 per cent of tonnage	May ) June ) 15 per cent of July ) total tonnage Aug. ) each month Sept.) Oct. )
Beans	Hoeing (once)	May -- 25 per cent of acreage June -- 50 per cent of acreage July -- 25 per cent of acreage
	Irrigating -- 75 per cent by seasonal workers	June -- all acreage July -- all acreage
	Piling	Sept. 1-30 -- 75 per cent of acreage Oct. 1-31 -- 25 per cent of acreage
	Threshing -- 80 per cent by seasonal workers	Sept. -- 50 per cent of crop Oct. -- 50 per cent of crop
Bean straw	Baling	Sept. -- 50 per cent of crop Oct. -- 50 per cent of crop
Beets, sugar	Thinning	Feb. -- 10 per cent of acreage Mar. -- 18 per cent of acreage Apr. -- 50 per cent of acreage May -- 22 per cent of acreage
	Hoeing, first time	Mar. -- 20 per cent of acreage Apr. -- 40 per cent of acreage May -- 40 per cent of acreage
	second time	May -- 20 per cent of acreage June -- 60 per cent of acreage July -- 20 per cent of acreage

(Table 2 continued on next page)



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Author	Title	Date
<p>1. <i>History of the University of Chicago</i></p> <p>2. <i>History of the University of Chicago</i></p>	<p>1. <i>History of the University of Chicago</i></p> <p>2. <i>History of the University of Chicago</i></p>	<p>1. <i>History of the University of Chicago</i></p> <p>2. <i>History of the University of Chicago</i></p>
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Table 2 continued

Crop	Operation	Time of Need
Beets, sugar - (cont'd)	Topping and loading	Aug.-- 45 per cent of crop Sept.--40 per cent of crop Oct.-- 15 per cent of crop
Grain -- (barley and wheat)	Harvesting by combine-- 50 per cent by seasonal workers	July 1-31 -- 80 per cent of acreage Aug. 1-15 -- 20 per cent of acreage
Grain hay	Mowing, raking, and shocking -- 75 per cent by seasonal workers	May
	Baling -- 75 per cent by seasonal workers	June 15-30 -- one-third of tonnage July 1-31 -- two-thirds of tonnage
Onions	Transplanting	Oct.--10 per cent of acreage Nov.--10 per cent of acreage Jan.--20 per cent of acreage Feb.--20 per cent of acreage Mar.--20 per cent of acreage Apr.--20 per cent of acreage
	Weeding, first time	Jan.--20 per cent of acreage Feb.--20 per cent of acreage Mar.--20 per cent of acreage Apr.--20 per cent of acreage May --20 per cent of acreage
	Weeding, second time	Feb.--20 per cent of acreage Mar.--20 per cent of acreage Apr.--20 per cent of acreage May --20 per cent of acreage June--20 per cent of acreage
	Harvesting -- pulling, clipping roots and tops, and putting in boxes or sacks.	May --10 per cent of acreage June--20 per cent of acreage July--25 per cent of acreage Aug.--25 per cent of acreage Sept.--20 per cent of acreage
Potatoes -- Irish (Main crop) -- estimated at 2,200 acres. 85 per cent of total production	Cutting seed -- 50 per cent by seasonal workers	Feb.--20 per cent of main crop acreage Mar.1-31 -- 75 per cent of main crop acreage Apr.1-15 -- 5 per cent of main crop acreage

(Table 2 continued on next page)



Date	Description	Amount
Jan 10 1900	To Balance	100.00
Jan 15 1900	By Cash	50.00
Jan 20 1900	To Cash	25.00
Jan 25 1900	By Cash	15.00
Jan 30 1900	To Cash	10.00
Feb 5 1900	By Cash	5.00
Feb 10 1900	To Cash	3.00
Feb 15 1900	By Cash	2.00
Feb 20 1900	To Cash	1.00



Table 2 continued

Crop	Operation	Time of Need
Potatoes -- Irish (cont'd)	Hoeing - 50 per cent by seasonal workers	Apr.--50 per cent of main crop acreage May --50 per cent of main crop acreage
	Picking up and sacking	June 1-30--34 per cent of total crop July 1-31--34 per cent of total crop Aug. 1-15--17 per cent of total crop
	Grading (by hand on tables)	June 1-30--34 per cent of total crop July 1-31--34 per cent of total crop Aug. 1-15--17 per cent of total crop
Potatoes (early or "new")-estimated at 600 acres. 15 per cent of total production	Picking up and putting in lugs	Apr. 1-30--10 per cent of total crop May 1-15--5 per cent of total crop
Seed crops (Zinnias, asters, marigolds = 75 per cent) (other flowers= 25 per cent)	Weeding--2 to 6 times Harvesting -- cutting, threshing, screening, etc., by hand	April 1 to July 31 Aug. 1 to Dec. 15
Vegetable crops:		
Asparagus	Cutting and packing	Mar. -- 10 per cent of crop Apr. -- 30 per cent of crop May -- 35 per cent of crop June -- 25 per cent of crop
Beans, "string" (green or snap)	Thinning and hoeing -- 25 per cent by seasonal labor	Mar.--50 per cent of acreage April--50 per cent of acreage
	Dusting	Mar.--one-third of acreage Apr.--one-third of acreage May --one-third of acreage
	Picking	Apr.--10 per cent of crop May --40 per cent of crop June--50 per cent of crop

(Table 2 continued on next page)



Date	Description	Amount
1941-12-15	To Cash - 100.00	100.00
1941-12-20	By Cash - 50.00	50.00
1941-12-25	To Cash - 25.00	25.00
1941-12-30	By Cash - 15.00	15.00
1942-01-05	To Cash - 10.00	10.00
1942-01-10	By Cash - 5.00	5.00
1942-01-15	To Cash - 3.00	3.00
1942-01-20	By Cash - 2.00	2.00



Table 2 continued

Crop	Operation	Time of need
Cabbage (based on earlot shipments)	Pulling plants and transplanting -- 50 per cent by seasonal workers on 828 acres estimated harvested for earlot shipment.	July 1-31 - 5 per cent of acreage Aug. 1-31 - 70 per cent of acreage Sept. 1-15- 25 per cent of acreage
	Harvesting for local market -- 25 per cent by seasonal workers.	July--7 per cent of local shipments. Aug.--6 per cent of local shipments. Sept.--5 per cent of local shipments Oct.--6 per cent of local shipments Nov.--7 per cent of local shipments Dec.--9 per cent of local shipments Jan.--13 per cent of local shipments Feb.--10 per cent of local shipments Mar.-- 9 per cent of local shipments Apr.-- 8 per cent of local shipments May --11 per cent of local shipments June-- 9 per cent of local shipments
	Cutting for earlot shipment -- 80 per cent seasonal labor (621 cars)	Jan.--6.5 per cent of earlots shipped Feb.--21 per cent of earlots shipped Mar.--27 per cent of earlots shipped Apr.--32 per cent of earlots shipped May --13 per cent of earlots shipped
	Packing -- (on earlot shipments)	Jan.--6.5 per cent of earlots shipped Feb.--21 per cent of earlots shipped

(Table 2 continued on next page)



Name	Address	City
John Doe	123 Main St	New York
Jane Smith	456 Elm St	Los Angeles
Bob Johnson	789 Oak St	Chicago
Alice Brown	101 Pine St	San Francisco
Charlie Davis	202 Cedar St	Houston
Diana Evans	303 Birch St	Phoenix
Frank Green	404 Maple St	Seattle
Grace Hill	505 Walnut St	Portland
Henry King	606 Spruce St	Denver
Ivy Lee	707 Ash St	Nashville
Jack Miller	808 Hickory St	Indianapolis
Karen Nelson	909 Sycamore St	Columbus
Leo Parker	1010 Chestnut St	San Antonio
Mia Quinn	1111 Elm St	Fort Worth
Noah Reed	1212 Oak St	Jacksonville



Table 2 continued

Crop	Operation	Time of Need
Cabbage (cont'd)	Packing -- (on carlot shipments) -- (cont'd)	Mar.--27 per cent of carlots shipped Apr.--32 per cent of carlots shipped May --13 per cent of carlots shipped
Carrots	Wooding	Sept.--240 acres Oct. --270 acres Nov. --230 acres Dec. --180 acres Jan. --185 acres Feb. --260 acres Mar. --190 acres Apr. --135 acres May --155 acres June --155 acres July --200 acres Aug.--200 acres
	Harvesting for carlot shipments	Jan.--42 per cent of carlots shipped Feb.--10 per cent of carlots shipped Apr.--17 per cent of carlots shipped May --19 per cent of carlots shipped June--8 per cent of carlots shipped
	Harvesting for local market	Jan.--10 per cent of local use Feb.--10 per cent of local use Mar.--10 per cent of local use Apr.--10 per cent of local use May --10 per cent of local use June-- 8 per cent of local use July-- 6 per cent of local use Aug.-- 7 per cent of local use Sept.- 6 per cent of local use Oct.-- 7 per cent of local use

(Table 2 continued on next page)



Name	Address	City
John Doe 123 Main St Anytown, CA 90210	123 Main St Anytown, CA 90210	Anytown, CA
Jane Smith 456 Elm St Beverly Hills, CA 90210	456 Elm St Beverly Hills, CA 90210	Beverly Hills, CA
Robert Johnson 789 Oak St Los Angeles, CA 90001	789 Oak St Los Angeles, CA 90001	Los Angeles, CA
Mary White 101 Pine St San Francisco, CA 94101	101 Pine St San Francisco, CA 94101	San Francisco, CA

Table 2 continued.

Crop	Operation	Time of Need
Carrots (cont'd)	Harvesting for local markets (cont'd)	Nov.-- 8 per cent of local use. Dec.-- 8 per cent of local use.
Cauliflower	Pulling plants and transplanting -- 50 per cent by seasonal workers. (on 1,030 acres)	Aug.-1-31 -- 80 per cent of acreage Sept.1-15 -- 20 per cent of acreage
	Hoeing -- 50 per cent by seasonal workers (on 1,030 acres)	Sept.--50 per cent of acreage Oct. --50 per cent of acreage
	Dusting--50 per cent by seasonal workers. (on 1,030 acres)	Sept.--50 per cent of acreage Oct. --50 per cent of acreage
	Applying fertilizer--50 per cent by seasonal workers. (on 1,030 acres)	Aug.--10 per cent of acreage Sept.--40 per cent of acreage Oct.--40 per cent of acreage Nov.--10 per cent of acreage
	Harvesting for carlot shipments (309,120 crates) 50 per cent by seasonal workers	Nov.-- 5 per cent of crop shipped Dec.--87 per cent of crop shipped Jan.--7.5 per cent of crop shipped Balance scattered and inconsequential
	Packing for carlot shipment	Same time as cutting
	Harvesting for local market--25 per cent by seasonal labor (590,880 crates)	Jan.--14 per cent Feb.--14 per cent Mar.--11 per cent Apr.-- 6 per cent May -- 4 per cent June-- 5 per cent July-- 3 per cent Aug.-- 3 per cent Sept.- 5 per cent Oct.--11 per cent Nov.--10 per cent Dec.--14 per cent

(Table 2 continued on next page)



Date	Description	Amount
Jan 1 1900	Balance forward	100.00
Jan 10 1900	To Cash	50.00
Jan 20 1900	By Cash	25.00
Jan 30 1900	To Cash	75.00
Feb 10 1900	By Cash	30.00
Feb 20 1900	To Cash	60.00
Feb 28 1900	By Cash	40.00
Mar 10 1900	To Cash	80.00
Mar 20 1900	By Cash	50.00
Mar 31 1900	To Cash	90.00

Table 2 continued

Crop	Operation	Time of Need
Celery -- estimates based on portion of crop shipped in carlots only.	Transplanting to field -- 50 per cent by seasonal workers. (Estimated on 550 acres)	Dec. 25-31-- 5 per cent of acreage Jan. 1-31--20 per cent of acreage Feb. 1-28--50 per cent of acreage Mar. 1-31--25 per cent of acreage
	Harvesting, cutting trimming packing	Apr. 15-30--6 per cent of carlots shipped May 1-31 -- 32 per cent of carlots shipped
	66 per cent by seasonal workers	June 1-31--39 per cent of carlots shipped July 1-15-- 5 per cent of carlots shipped Dec. -- 10 per cent of carlots shipped Balance scattered and inconsequential
Corn (sweet)	Hoeing and suckering	May 15-31--10 per cent of acreage June 1-30--35 per cent of acreage July 1-31--30 per cent of acreage Aug. 1-31--25 per cent of acreage
	Picking and packing -- 50 per cent by seasonal workers	June -- 10 per cent of crop July -- 30 per cent of crop Aug. -- 27 per cent of crop Sept. -- 24 per cent of crop Oct. -- 9 per cent of crop
Cucumbers (pickling)	Thinning and hoeing (twice)	June 1-30
	Picking	July 1-31--one-third of crop Aug. 1-31--two-thirds of crop

( Table 2 continued on next page)



Date	Description	Amount
1900-01-01	Balance forward	100.00
1900-01-05	Cash on hand	50.00
1900-01-10	Cash on hand	25.00
1900-01-15	Cash on hand	15.00
1900-01-20	Cash on hand	10.00
1900-01-25	Cash on hand	5.00
1900-01-30	Cash on hand	2.50
1900-02-01	Cash on hand	1.25
1900-02-05	Cash on hand	0.62
1900-02-10	Cash on hand	0.31
1900-02-15	Cash on hand	0.16
1900-02-20	Cash on hand	0.08
1900-02-25	Cash on hand	0.04
1900-02-28	Cash on hand	0.02
1900-03-01	Cash on hand	0.01
1900-03-05	Cash on hand	0.00
1900-03-10	Cash on hand	0.00
1900-03-15	Cash on hand	0.00
1900-03-20	Cash on hand	0.00
1900-03-25	Cash on hand	0.00
1900-03-30	Cash on hand	0.00
1900-03-31	Cash on hand	0.00
1900-04-01	Cash on hand	0.00
1900-04-05	Cash on hand	0.00

Table 2 continued on next page

Crop	Operation	Time of Need
Lettuce (based on carlot shipments only) 142,272 crates from estimated 1,054 acres at 135 crates per acre	Thinning	Sept.--50 per cent of acreage
		Oct. --50 per cent of acreage
	Hoeing	Oct. --50 per cent of acreage
		Nov.--50 per cent of acreage
	Cutting (456 cars)	Nov.--40 per cent of carlot shipments
Peas		Dec.--51 per cent of carlot shipments
		Jan.-- 5 per cent of carlot shipments
		Balance scattered and inconsequential
	Picking	Nov.-- 5 per cent of crop
		Dec.--19 per cent of crop
Tomatoes		Jan.--30 per cent of crop
		Feb.--30 per cent of crop
		Mar.--13 per cent of crop
		Apr.-- 3 per cent of crop
	Transplanting to field	May
	Hoeing, twice	May, once--all acres
		June -- 50 per cent of acreage
		July--50 per cent of acreage
	Dusting -- 50 per cent by seasonal labor (on one-third of acreage)	June, once -- on one-third of acreage
		July) one-sixth of acreage
		Aug.) each month
	Picking for cannery (17,500 tons total)	Sept.--50 per cent of canning tonnage
		Oct. --40 per cent of canning tonnage
		Nov. --10 per cent of canning tonnage
	Picking for market (2,296,000 lugs total)	July -- 22 per cent of market tonnage
		Aug. -- 23 per cent of market tonnage
		Sept. -- 21 per cent of market tonnage
		Oct. -- 17 per cent of market tonnage
		Nov. -- 8 per cent of market tonnage

(Table 2 continued on next page)



Name	Address	City
<p>Mr. J. H. Smith 123 Main St. New York, N.Y.</p>	<p>Mr. J. H. Smith 123 Main St. New York, N.Y.</p>	<p>Mr. J. H. Smith 123 Main St. New York, N.Y.</p>
<p>Mr. J. H. Smith 123 Main St. New York, N.Y.</p>	<p>Mr. J. H. Smith 123 Main St. New York, N.Y.</p>	<p>Mr. J. H. Smith 123 Main St. New York, N.Y.</p>
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<p>Mr. J. H. Smith 123 Main St. New York, N.Y.</p>	<p>Mr. J. H. Smith 123 Main St. New York, N.Y.</p>	<p>Mr. J. H. Smith 123 Main St. New York, N.Y.</p>

Table 2 continued

Crop	Operation	Time of Need
Tomatoes (cont'd)	Picking for market (cont'd)	Balance scattered and inconsequential
Cantaloupes	Planting -- 50 per cent by seasonal workers	Feb. 21-28 -- 5 per cent of acreage Mar. 1-31 -- 70 per cent of acreage Apr. 1-30 -- 15 per cent of acreage May -- 10 per cent of acreage
	Capping	Feb. 1-28 -- 5 per cent of acreage Mar. 1-31 -- 70 per cent of acreage Apr. 1-30 -- 15 per cent of acreage
	Removing caps, thinning, hoeing -- 50 per cent by seasonal workers	Apr. 20-30 -- 40 per cent of acreage May 1-15 -- 60 per cent of acreage
	Hoeing -- 50 per cent by seasonal workers	May -- 50 per cent of acreage June -- 50 per cent of acreage
	Turning vines	June -- two times, all acres July -- one time, all acres
	Picking	July 1-31 -- 24 per cent of crop Aug. 1-31 -- 50 per cent of crop Sept. 1-30 -- 21 per cent of crop
	Packing -- 50 per cent by seasonal workers	July 1-31 -- 24 per cent of crop Aug. 1-31 -- 50 per cent of crop Sept. 1-31 -- 21 per cent of crop
Fruit crops: Apples	Thinning Picking	May Sept. 1-30 -- 50 per cent of crop Oct. 1-31 -- 50 per cent of crop

(Table 2 continued on next page)



Date	Description	Amount
1/1/2020	Initial deposit	100.00
1/15/2020	Withdrawal for rent	25.00
2/1/2020	Deposit for groceries	15.00
2/15/2020	Withdrawal for utilities	30.00
3/1/2020	Deposit for savings	20.00
3/15/2020	Withdrawal for car repair	40.00
4/1/2020	Deposit for insurance	10.00
4/15/2020	Withdrawal for groceries	15.00
5/1/2020	Deposit for rent	25.00
5/15/2020	Withdrawal for utilities	30.00
6/1/2020	Deposit for savings	20.00
6/15/2020	Withdrawal for car repair	40.00
7/1/2020	Deposit for insurance	10.00
7/15/2020	Withdrawal for groceries	15.00
8/1/2020	Deposit for rent	25.00
8/15/2020	Withdrawal for utilities	30.00
9/1/2020	Deposit for savings	20.00
9/15/2020	Withdrawal for car repair	40.00
10/1/2020	Deposit for insurance	10.00
10/15/2020	Withdrawal for groceries	15.00
11/1/2020	Deposit for rent	25.00
11/15/2020	Withdrawal for utilities	30.00
12/1/2020	Deposit for savings	20.00
12/15/2020	Withdrawal for car repair	40.00
1/1/2021	Deposit for insurance	10.00
1/15/2021	Withdrawal for groceries	15.00

Table 2 continued

Crop	Operation	Time of Need
Almonds	Knocking -- 75 per cent by seasonal workers	Aug.) Sept) one-third each month Oct.)
	Hulling -- 75 per cent by seasonal workers	Aug.) Sept) one-third each month Oct.)
Apricots	Picking	June 15-30 -- 50 per cent of crop July 1-15 -- 50 per cent of crop
	Cutting for drying -- (50 per cent of crop)	June 15-30 -- 25 per cent of crop July 1-15 -- 25 per cent of crop
	Other dry yard work	June 15-30 -- 25 per cent of crop July 1-15 -- 25 per cent of crop
Avocadoes		
Citrus -- Oranges	Picking	Jan. -- 7.8 per cent of crop Feb. -- 8.4 per cent of crop Mar. -- 10.2 per cent of crop Apr. -- 10.4 per cent of crop May -- 8.3 per cent of crop June -- 9.9 per cent of crop July -- 11.5 per cent of crop Aug. -- 10.1 per cent of crop Sept. -- 9.6 per cent of crop Oct. -- 9.3 per cent of crop Nov. -- 3.7 per cent of crop Dec. -- 0.8 per cent of crop
Lemons	Picking	Jan. -- 14.5 per cent of crop Feb. -- 13.7 per cent of crop Mar. -- 12.3 per cent of crop Apr. -- 10.5 per cent of crop May -- 7.8 per cent of crop June -- 3.6 per cent of crop July -- 3.5 per cent of crop Aug. -- 2.5 per cent of crop Sept. -- 3.2 per cent of crop Oct. -- 2.9 per cent of crop Nov. -- 10.1 per cent of crop Dec. -- 15.4 per cent of crop

(Table 2 continued on next page)



<p>1. The first part of the report is a summary of the work done during the period covered by the report.</p>	<p>2. The second part of the report is a detailed account of the work done during the period covered by the report.</p>	
<p>3. The third part of the report is a summary of the work done during the period covered by the report.</p>	<p>4. The fourth part of the report is a detailed account of the work done during the period covered by the report.</p>	
<p>5. The fifth part of the report is a summary of the work done during the period covered by the report.</p>	<p>6. The sixth part of the report is a detailed account of the work done during the period covered by the report.</p>	
<p>7. The seventh part of the report is a summary of the work done during the period covered by the report.</p>	<p>8. The eighth part of the report is a detailed account of the work done during the period covered by the report.</p>	
<p>9. The ninth part of the report is a summary of the work done during the period covered by the report.</p>	<p>10. The tenth part of the report is a detailed account of the work done during the period covered by the report.</p>	
<p>11. The eleventh part of the report is a summary of the work done during the period covered by the report.</p>	<p>12. The twelfth part of the report is a detailed account of the work done during the period covered by the report.</p>	
<p>13. The thirteenth part of the report is a summary of the work done during the period covered by the report.</p>	<p>14. The fourteenth part of the report is a detailed account of the work done during the period covered by the report.</p>	
<p>15. The fifteenth part of the report is a summary of the work done during the period covered by the report.</p>	<p>16. The sixteenth part of the report is a detailed account of the work done during the period covered by the report.</p>	
<p>17. The seventeenth part of the report is a summary of the work done during the period covered by the report.</p>	<p>18. The eighteenth part of the report is a detailed account of the work done during the period covered by the report.</p>	
<p>19. The nineteenth part of the report is a summary of the work done during the period covered by the report.</p>	<p>20. The twentieth part of the report is a detailed account of the work done during the period covered by the report.</p>	
<p>21. The twentieth part of the report is a summary of the work done during the period covered by the report.</p>	<p>22. The twenty-first part of the report is a detailed account of the work done during the period covered by the report.</p>	
<p>23. The twenty-second part of the report is a summary of the work done during the period covered by the report.</p>	<p>24. The twenty-third part of the report is a detailed account of the work done during the period covered by the report.</p>	

Table 2 continued

Crop	Operation	Time of Need
Grapefruit	Picking	May -- 20 per cent of crop June -- 20 per cent of crop July -- 30 per cent of crop Aug. -- 15 per cent of crop Sept. -- 5 per cent of crop Balance scattered and inconsequential
Grapes -- all operations 50 per cent by seasonal workers	Pruning	Dec. 15-31 -- 10 per cent of acreage Jan. 1-31 -- 50 per cent of acreage Feb. 1-28 -- 40 per cent of acreage
	Hoeing	April
	Suckoring	Apr. 21-30 -- 50 per cent of acreage May 1-7 -- 50 per cent of acreage
	Sulfuring	April -- all acreage May -- all acreage June -- all acreage
	Picking	Sept. -- 15 per cent of crop Oct. -- 60 per cent of crop Nov. -- 25 per cent of crop
Olives	Picking for canning (culls used for oil)	Oct. -- 18 3/4 per cent of crop Nov. -- 37 1/2 per cent of crop Dec. -- 1-20 -- 18 3/4 per cent of crop
	Picking for oil	Jan. 1-31 -- 12 1/2 per cent Feb. 1-28 -- 12 1/2 per cent
Peaches	Thinning	Apr. 21-30 -- one-third of acreage May 1-15 -- two thirds of acreage
	Picking	Aug. 15-31 -- two thirds of crop Sept. 1-7 -- one-third of crop
Pears -- (Bartlett)	Pruning -- 75 per cent by seasonal workers	Dec.) Jan.) one-third acreage each Feb.) month

(Table 2 continued on next page)



<p>1. The first section of the report discusses the current state of the economy and the impact of the recent recession. It highlights the challenges faced by businesses and the government's response to these challenges.</p>		
<p>2. The second section of the report focuses on the impact of the recession on the labor market. It examines the changes in employment levels and the skills required by employers in the current market.</p>	<p>3. The third section of the report discusses the impact of the recession on the financial system. It examines the changes in the money supply and the interest rate, and the impact of these changes on the economy.</p>	<p>4. The fourth section of the report discusses the impact of the recession on the government's budget. It examines the changes in government spending and revenue, and the impact of these changes on the budget deficit.</p>
<p>5. The fifth section of the report discusses the impact of the recession on the housing market. It examines the changes in housing prices and the impact of these changes on the economy.</p>	<p>6. The sixth section of the report discusses the impact of the recession on the education system. It examines the changes in education spending and the impact of these changes on the quality of education.</p>	
<p>7. The seventh section of the report discusses the impact of the recession on the health care system. It examines the changes in health care spending and the impact of these changes on the quality of health care.</p>	<p>8. The eighth section of the report discusses the impact of the recession on the environment. It examines the changes in environmental spending and the impact of these changes on the environment.</p>	
<p>9. The ninth section of the report discusses the impact of the recession on the social welfare system. It examines the changes in social welfare spending and the impact of these changes on the social welfare system.</p>	<p>10. The tenth section of the report discusses the impact of the recession on the infrastructure system. It examines the changes in infrastructure spending and the impact of these changes on the infrastructure system.</p>	
<p>11. The eleventh section of the report discusses the impact of the recession on the energy system. It examines the changes in energy spending and the impact of these changes on the energy system.</p>	<p>12. The twelfth section of the report discusses the impact of the recession on the transportation system. It examines the changes in transportation spending and the impact of these changes on the transportation system.</p>	
<p>13. The thirteenth section of the report discusses the impact of the recession on the information system. It examines the changes in information spending and the impact of these changes on the information system.</p>	<p>14. The fourteenth section of the report discusses the impact of the recession on the communication system. It examines the changes in communication spending and the impact of these changes on the communication system.</p>	<p>15. The fifteenth section of the report discusses the impact of the recession on the defense system. It examines the changes in defense spending and the impact of these changes on the defense system.</p>

Table 2 continued.

Crop	Operation	Time of Need
Pears -- (Bartlett) (cont'd).	Spraying -- four times, 75 per cent by seasonal workers	Apr. 15-30 -- 16 $\frac{2}{3}$ per cent of job
		May 1-31 -- 33 $\frac{1}{3}$ per cent of job
		June 1-30 -- 33 $\frac{1}{3}$ per cent of job
		July 1-15 -- 16 $\frac{2}{3}$ per cent of job
	Picking	July 20-30 on early seasons only
		Aug. 1-31 -- usually all this month
		Sept. 1-10 on late seasons
Persimmons	Grading and packing	July 20-30 on early seasons only
		Aug. 1-31 usually all this month
		Sept. 1-10 on late seasons
	Picking	Nov. 1-20
Walnuts San Fernando Valley (2,937 tons)	Shaking off, picking up and hulling by hand (50 per cent of crop)	Sept. 15-30 -- 12 $\frac{1}{2}$ per cent of crop
		Oct. 1-31 -- 37 $\frac{1}{2}$ per cent of crop
	Shaking off, picking up only (50 per cent of crop)	Sept. 15-30 -- 12 $\frac{1}{2}$ per cent of crop
		Oct. 1-31 -- 37 $\frac{1}{2}$ per cent of crop
	Hulling by machine	Sept. 15-30 -- 12 $\frac{1}{2}$ per cent of crop
		Oct. 1-31 -- 37 $\frac{1}{2}$ per cent of crop
Walnuts -- other districts (6,536 tons)	Shaking off, picking up hulling by hand	Sept. -- 33 $\frac{1}{3}$ per cent of crop
		Oct. -- 16 $\frac{2}{3}$ per cent of crop
	Shaking off and picking up only (50 per cent of crop)	Sept. -- 33 $\frac{1}{3}$ per cent of crop
		Oct. -- 16 $\frac{2}{3}$ per cent of crop
	Hulling by machine	Sept. -- 33 $\frac{1}{3}$ per cent
		Oct. -- 16 $\frac{2}{3}$ per cent
Raspberries	Picking*	May -- 28 per cent of crop
		June -- 47 per cent of crop
		July -- 22 per cent of crop
Strawberries	Picking*	Apr. 1-30 -- 23 per cent of crop
		May 1-31 -- 37 per cent of crop

(Table 2 continued on next page.)



Name	Address	City
John Doe	123 Main St	New York
Jane Smith	456 Elm St	Los Angeles
Bob Johnson	789 Oak St	Chicago
Alice Brown	101 Pine St	San Francisco
Charlie White	202 Cedar St	Houston
Diana Green	303 Birch St	Phoenix
Eve Black	404 Maple St	Portland
Frank Gray	505 Walnut St	Seattle
Grace Hall	606 Spruce St	Denver
Henry King	707 Ash St	Nashville
Ivy Lee	808 Hickory St	San Antonio
Jack Miller	909 Sycamore St	Jacksonville
Karen Wilson	1010 Dogwood St	Fort Worth
Leo Adams	1111 Magnolia St	Columbus
Mia Baker	1212 Redwood St	Indianapolis
Noah Clark	1313 Cypress St	San Diego
Olivia Evans	1414 Juniper St	Austin
Peter Foster	1515 Laurel St	San Jose
Quinn Gibson	1616 Fir St	New Orleans
Rory Hall	1717 Hemlock St	Boston
Samuel King	1818 Spruce St	San Luis Obispo
Tina Lee	1919 Cedar St	Honolulu
Uma Miller	2020 Birch St	Anchorage
Victor Wilson	2121 Ash St	Sioux Falls
Wendy Adams	2222 Hickory St	Bismarck
Xavier Baker	2323 Sycamore St	Des Moines
Yara Clark	2424 Dogwood St	Lincoln
Zoe Evans	2525 Magnolia St	Topeka

Table 2 continued

Crop	Operation	Time of Need
Strawberries (cont'd)	Picking (cont'd)	June 1-30 -- 23 per cent of crop July 1-15 -- 10 per cent of crop
Youngberries	Picking*	May 24-31 -- 5 per cent of crop June 1-30 -- 80 per cent of crop July 1-15 -- 15 per cent of crop
Blackberries	Picking*	May -- 20 per cent of crop June -- 54 per cent of crop July -- 20 per cent of crop

\*Distribution of berry picking by months is based on unloads at Los Angeles from "local" district.

Findings of Seasonal Labor Needs.--- Details and summaries of seasonal labor requirements of Los Angeles County agriculture are presented as table 3. The "size of task" are figures drawn from table 1 in terms of either acreage or output in tons, crates, boxes, or whatever unit is commonly used. The "output per-man day" is an average figure for the entire acreage or output figured in packed crates, hampers, or boxes (in case of fruits and vegetables). If the work is of a nature that requires a crew different members of which perform different tasks (such as cutting, trimming, loading, and hauling cauliflower; trimming and crating celery, etc.), then the average shown is per man based on the entire crew. Length of day is 9 hours, unless otherwise stated. Wide variations in output occur between farm and farm, field and field, and season and season, because of differences in soil types, climatic conditions, weeds, yields, and other factors influencing the amount of work that a laborer can perform in a given day. Moreover, the basis of output is a mature, experienced male worker, without reference to use of women, children, and more or less inexperienced help that is sometimes used in connection with certain of the tasks requiring use of seasonal workers. The column headed "available days" reflects (a) limitations set from the period within which the work must be performed because of the nature of the task, such as transplanting, thinning, weeding, and cutting, and (b) available days as determined by weather conditions, inclement weather reducing the number of days when a required task can be performed. The "required number of individuals" is given in terms of workers as noted above in connection with "output per-man day."



Year	Number of cases	Percentage of total
1910	10	10.0
1911	15	15.0
1912	20	20.0
1913	25	25.0
1914	30	30.0
1915	35	35.0
1916	40	40.0
1917	45	45.0
1918	50	50.0
1919	55	55.0
1920	60	60.0
1921	65	65.0
1922	70	70.0
1923	75	75.0
1924	80	80.0
1925	85	85.0
1926	90	90.0
1927	95	95.0
1928	100	100.0

Table 1. Distribution of cases by month in 1928. The total number of cases was 100.

The following table shows the distribution of cases by month in 1928. The total number of cases was 100. The distribution is as follows:

Month	Number of cases	Percentage of total
January	10	10.0
February	15	15.0
March	20	20.0
April	25	25.0
May	30	30.0
June	35	35.0
July	40	40.0
August	45	45.0
September	50	50.0
October	55	55.0
November	60	60.0
December	65	65.0

The following table shows the distribution of cases by month in 1929. The total number of cases was 100. The distribution is as follows:

Month	Number of cases	Percentage of total
January	10	10.0
February	15	15.0
March	20	20.0
April	25	25.0
May	30	30.0
June	35	35.0
July	40	40.0
August	45	45.0
September	50	50.0
October	55	55.0
November	60	60.0
December	65	65.0

The following table shows the distribution of cases by month in 1930. The total number of cases was 100. The distribution is as follows:

Month	Number of cases	Percentage of total
January	10	10.0
February	15	15.0
March	20	20.0
April	25	25.0
May	30	30.0
June	35	35.0
July	40	40.0
August	45	45.0
September	50	50.0
October	55	55.0
November	60	60.0
December	65	65.0

TABLE 3

Seasonal Labor Needs -- Los Angeles County -- by Months and Tasks

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
January	Onions: transplanting	280 acres	0.20 acre	1,400	20	70
	weeding, first time	280 acres	0.33 acre	840	20	42
	Cabbage: harvesting for local market	9,631 crates†	50 crates	193	20	10
	cutting for shipment in carlots (40 cars)	9,216 crates†	80 crates	116	20	6
	packing for shipment in carlots (40 cars)	11,520 crates	45 crates	256	20	13
	Carrots: weeding	185 acres	0.25 acre	740	20	37
	harvesting for carlot shipment	19,376 packed crates	12 crates of six dozen	1,615	20	81
	harvesting for local market	10,700 field crates	24 crates of three dozen	4,613	20	231
	Cauliflower: harvesting for carlot shipment	11,592 crates†	90 crates	129	20	7
	packing for carlot shipment	23,184 crates	125 crates	186	20	9
	harvesting for local market	20,683 crates†	90 crates	230	20	12
	Celery: transplanting in field	55 acres	0.25 acre	220	20	11
	Lettuce: cutting for carlot shipment	7,114 crates	30 packed crates	238	20	12
	Peas: picking	55,200 hampers	7 hampers	7,886	20	395
	Citrus -- Oranges: picking	1,179,890 field boxes	60 field boxes of 50 pounds	19,665	20	984
	Lemons: picking	669,755 field boxes	20 field boxes	33,488	20	1,675
	Grapes: pruning	1,198 acres†	0.75 acre	1,598	20	80
	Olives: picking for oil	72 tons	200 pounds	720	20	36
	Pears: pruning	620 acres†	0.25 acre	2,480	20	124
	Totals			76,613	20	3,831 man months

(Table continued on next page)





Table continued

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
February	Beets, (sugar): Thinning	650 acres	0.5 acre	1,300	23	57
	Onions: transplanting	280 acres	0.2 acre	1,400	23	61
	weeding, first time	280 acres	0.33 acre	840	23	36
	weeding, second time	280 acres	2 acres	140	23	6
	Potatoes: cutting seed (220 acres)	2,200 cwt.†	750 pounds	147	23	7
	Cabbage: cutting for shipment by carlots (131 cars)	30,182 crates†	180 crates	378	23	17
	packing for shipment by carlots	37,728 crates	45 crates	839	23	37
	harvesting for local market	7,409 crates†	50 crates	149	23	7
	Carrots: weeding	260 acres	0.25 acre	1,040	23	46
	harvesting for carlot shipments	4,498 packed crates	12 crates of six dozen	375	15	25 (for fifteen days)
	harvesting for local market	110,700 field crates	24 crates of three dozen	4,613	23	201
	Cauliflower: harvesting for local market	20,683 crates†	90 crates	230	23	10
	Celery: transplanting	138 acres†	0.25 acre	552	23	24
	Peas: picking	55,200 hampers	7 hampers	7,886	23	343
	Cantaloupes: planting	50 acres†	4 acres	13	7	2 (from 21st to 28th)
	capping	100 acres	1 acre	100	7	15
	Citrus—Oranges: picking	1,280,661 field boxes	60 field boxes of 50 pounds	21,345	23	928
	Lemons: picking	632,803 field boxes	20 field boxes	31,640	23	1,376
	Grapes: pruning	958 acres†	0.75 acre	1,278	23	56
	Olives: picking for oil	72 tons	200 pounds	720	23	32
	Pears: pruning	620 acres†	0.25 acre	2,480	23	108
	Total			77,465	23	3,368 man-months

(Table continued on next page)





Table continued

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
March	Sugas beets: thinning	1,170 acres	0.5 acre	2,340	24	98
	hoeing, first time	1,300 acres	2 acres	650	24	27
	Onions: transplanting	280 acres	0.2 acre	1,400	24	59
	weeding, first time	280 acres	0.33 acre	840	24	35
	weeding, second time	280 acres	2.0 acres	140	24	6
	Potatoes (Irish): cutting seed (825 acres)	8,250 cwt.†	1,500 pounds	550	24	23
	Asparagus: cutting and packing	13,200 crates	4 crates	3,300	24	138
	Beans (string): thinning and hoeing	500 acres†	1 acre	500	24	21
	dusting	1,333 acres	4 acres	334	24	14
	Cabbage: harvesting for local market	6,668 crates†	50 crates	134	24	6
	cutting for shipment by carlots (170 cars)	39,168 crates†	180 crates	490	24	21
	packing for shipment by carlots	48,960 crates	45 crates	1,088	24	46
	Carrots: weeding	190 acres	0.25 acre	760	24	32
	harvesting for carlot shipments					
	harvesting for local market	110,700 field crates	24 crates of three dozen	4,613	24	193
	Cauliflower: harvesting for local market	1,625 crates†	90 crates	181	24	8
	Celery: transplanting to field	69 acres†	0.25 acre	156	2	7
	Peas: picking	23,920 hampers	7 hampers	3,417	24	143
	Cantaloupes: planting	700 acres†	4 acres	175	24	8
	capping	1,400 acres	1 acre	1,400	24	59
	Citrus --- Oranges: picking	1,542,934 field boxes	60 field boxes	25,716	24	1,072
	Lemons: picking	568,137 field boxes	20 field boxes	28,407	24	1,182
	Total			76,591	24	3,198 man-months

(Table continued on next page)





Table continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
April	Sugar beets: thinning	3,250 acres	0.5 acre	6,500	24	271
	hoeing, first time	2,600 acres	2 acres	1,300	24	55
	Onions: transplanting	280 acres	0.2 acre	1,400	24	59
	weeding, first time	280 acres	0.33 acre	840	24	35
	weeding, second time	280 acres	2.0 acres	140	24	6
	Potatoes (Irish): cutting seed (55 acres)	550 cwt.†	15 cwt.	36	12	3 (from 1st
	hoeing	1,100 cwt.†	2.5 acres	440	24	19 to 15th)
	Potatoes — "new": picking up and putting in lugs	42,000 cwt.	2,000 pounds (600 boxes)	2,100	24	88
	Seed crops: weeding, etc.	—	—	720	24	30
	Asparagus: cutting and packing	39,600 crates	4 crates	9,900	24	413
	Beans (string): thinning and hoeing	500 acres†	1 acre	500	24	21
	dusting	1,333 acres	4 acres	334	24	14
	picking	54,400 hampers	7 hampers	7,772	12	648 (from 15th
	Cabbage: harvesting for local market	5,927 crates†	50 crates	119	24	5 to 31st)
	cutting for shipment in carlots (198 cars)	45,619 crates†	80 crates	571	24	24
	packing for shipment in carlots (198 cars)	57,024 crates	45 crates	1,268	24	53
	Carrots: weeding	135 acres	0.25 acre	540	24	23
	harvesting for carlot shipments	7,958 packed crates	12 crates of six dozen	663	24	28
	harvesting for local market	110,700 field crates	24 crates of three dozen	4,613	24	193
	Cauliflower: harvesting for local market	8,864 crates†	90 crates	99	24	5
	Celery: harvesting for carlot shipments	15,341 crates†	34 crates	452	12	38 (from 15th to 30th)
	Peas: picking	5,520 hampers	7 hampers	789	24	33
	Cantaloupes: planting	150 acres†	4 acres	38	24	2

(Table continued on next page)





Table continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
April (cont'd)	Cantaloupes (cont'd)					
	capping	300 acres	1 acre	300	24	13
	removing caps, thinning and hoeing	400 acres†	0.33 acre	1,200	10	120 (from 20th to 30th)
	Citrus -- Oranges: picking	1,573,187 field boxes	60 field boxes	26,220	24	1,093
	Lemons: picking	484,995 field boxes	20 field boxes	24,250	24	1,015
	Grapes: hoeing	2,397 acres†	1.5 acres	1,600	24	67
	sulfuring	2,397 acres†	10 acres	240	24	10
	suckering	1,198 acres†	1.5 acres	800	24	34
	Peaches: thinning	560 acres	0.25 acre	2,240	8	280 (from 21st to 30th)
	Pears: spraying	1,240 acres†	2.25 acres	552	12	46 (from 15th to 30th)
	Strawberries: picking	161,000 trays	15 trays	10,734	24	448
	Totals			109,270	24	4,553 man-months
May	Alfalfa: mowing	12,500 acres†	10 acres (in 10 hours)	1,250 (of 10 hrs.)	26	49
	raking	12,500 acres†	15 acres (in 10 hours)	834 (of 10 hrs.)	26	33
	shocking	12,500 acres†	30 acres (in 10 hours)	417 (of 10 hrs.)	26	16
	baling	12,150 tons†	4 tons (in six hours)	3,038 (of 6 hrs.)	26	117
	Beans: hoeing	4,500 acres	2.5 acres	1,800	26	70
	Sugar beets: thinning	1,430 acres	0.5 acre	2,860	13	220 (from 1st to 15th)
	hoeing, first time	2,600 acres	2 acres	1,300	26	50
	hoeing, second time	1,300 acres	3 acres	443	26	17
	Grain hay: mowing	34,206 acres†	9 acres	3,801	26	147
	raking	34,206 acres†	18 acres	1,901	26	74
	shocking	34,206 acres†	30 acres	1,141	26	44
	Onions: weeding, first time	280 acres	0.33 acre	840	26	33
	weeding, second time	280 acres	2 acres	140	26	6

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Table continued

Month	Crop and task	Size of task	Output per man-day	Required men-days	Available days	Required number of workers*
May (cont'd)	Onions (cont'd) harvesting	26,600 cwt.	20 cwt.	1,330	26	52
	Potatoes (Irish): hoeing	1,100 acres†	2.5 acres	440	26	17
	Potatoes "new": picking up and putting in lugs	21,000 cwt.	2,000 pounds (60 boxes)	1,050	13	81 (from 1st to 15th)
	Seeding crops: weeding, etc.	--	--	780	26	30
	Asparagus: cutting and packing	46,200 crates	4 crates	11,500	26	445
	Beans (string): dusting	1,333 acres	4 acres	334	26	13
	picking	217,000 hampers	7 hampers	31,086	26	1,196
	Cabbage: harvesting for local market	8,125 crates†	50 crates	163	26	7
	cutting for shipment by carlot (77 cars)	17,741 crates†	80 crates	222	26	9
	packing for shipment by carlot (77 cars)	22,176 crates	45 crates	493	26	19
	Carrots: weeding	155 acres	0.25 acre	620	26	24
	harvesting for carlot shipments	8,650 packed crates	12 crates of six dozen	721	26	28
	harvesting for local market	110,700 field crates	24 crates of three dozen	4,613	26	178
	Celery: harvesting for carlot shipments	81,818 crates†	34 crates	2,407	26	93
	Corn: hoeing and suckering	700 acres	1.0 acre	700	13	54 (from 15th to 31st)
	Cauliflower: harvesting for local market	5,909 crates†	90 crates	66	26	3
	Tomatoes: transplanting to field -- canning acreage	5,672	1 acre	5,672	26	218
	hoeing, once	7,000 acres	3 acres	2,334	26	90
	Cantaloupes: planting	100 acres†	4 acres	25	26	1
	remove caps, thinning and hoeing	600 acres†	0.33	1,800	13	139 (from 1st to 15th)
	hoeing	500 acres†	5 acres	100	26	4
	Apples: thinning, all acres	441 acres	0.2 acre	2,205	26	85

(Table continued on next page)





Table continued

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
May (cont'd)	Citrus -- Oranges: picking	1,255,524 field boxes	60 field boxes	20,926	26	781)
	Lemons: picking	360,282 field boxes	11 field boxes	32,753	26	1,260) 2,086
	Grapefruit: picking	68,964 field boxes	60 field boxes	1,150	26	45)
	Grapes: suckering	1,198 acres†	1.5 acres	800	26	31 (from 1st to 7th)
	sulfuring	2,397 acres	10 acres	240	26	10
	Peaches: thinning	1,120 acres	0.25 acre	4,480	13	345 (from 1st to 15th)
	Pears: spraying	2,481 acres†	2.25 acres	1,103	26	43
	Blackberries: picking	22,500 trays	15 trays	1,500	26	58
	Raspberries: picking	84,000 trays	7 trays	12,000	26	462
	Strawberries: picking	259,000 trays	15 trays	17,267	26	664
	Youngberries	25,000 trays	15 trays	1,667	7	236 (from 24th to 31st)
	Totals			182,352	26	7,014 man-months
June	Alfalfa: mowing	12,500 acres†	10 acres (in 10 hours)	1,250 (of 10 hrs.)	25	50
	raking	12,500 acres†	15 acres (in 10 hours)	834 (of 10 hrs.)	25	34
	shocking	12,500 acres†	30 acres (in 10 hours)	417 (of 10 hrs.)	25	17
	baling	12,150 tons†	4 tons (in 6 hrs.)	3,038 (of 6 hrs.)	25	122
	Beans: hoeing	9,000 acres	2.5 acres	3,600	25	144
	irrigating	13,500 acres†	5 acres (in 12 hours)	2,700 (of 12 hrs.)	25	108
	Beets (sugar): hoeing, second time	3,900 acres	3 acres	1,300	13	100 (from 1st to 15th)
	Grain hay: baling	13,320 tons †	5 tons (in 12 hrs.)	2,664 (of 12 hrs.)	13	205 (from 1st to 15th) <sup>25</sup>

(Table continued on next page.)





Table continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
June (cont'd)	Onions: harvesting	53,200 cwt.	20 cwt.	2,660	25	107
	weeding, second time	280 acres	2 acres	140	25	6
	Potatoes: picking up and					
	sacking	142,800 cwt.	60 cwt.	2,380	25	96
	grading	142,800 cwt.	100 cwt.	1,428	25	58
	Seed crops: weeding, etc.	--	--	750	25	30
	Asparagus: cutting and	33,000 crates	4 crates	8,250	25	330
	packing					
	Beans (string): picking	272,000 hampers	8 hampers	34,000	25	1,360
	Cabbage: harvesting for					
	local market and carlot					
	shipment	8,108 crates †	50 crates	163	25	7
	Carrots: weeding	155 acres	0.25 acre	620	25	25
	harvesting for carlot	3,806 packed	12 crates of six			
	shipment	crates	dozen	317	13	25 (for 13 days)
	harvesting for local	88,582 field	24 crates of three			
	market	crates	dozen	3,691	25	148
	Cauliflower: harvesting for					
	local market	7,386 crates †	90 crates	83	25	4
	Celery: harvesting for					
	carlot shipment	99,715 crates †	34 crates	2,930	25	118 †
	Corn: hoeing and suckering	2,450 acres	1.0 acre	2,450	25	98
	picking and packing	105,000 lugs †	75 lugs	1,400	12	117 (from 15th to 30th)
	Cucumbers: thinning and					
	hoeing, first time	513 acres	1 acre	513	12	43 (from 1st to 15th)
	thinning and hoeing,					
	second time	513 acres	3 acres	171	12	15 (from 15th to 30th)
	Tomatoes: hoeing	3,500 acres	3 acres	1,167	25	48
	dusting	2,333 acres	5 acres	467	25	19
	Cantaloupes: hoeing	500 acres †	5 acres	100	25	4
	turning vines, twice	4,000 acres	5 acres	800	25	32
	Apricots: picking	1,400 tons	2,500 pounds	1,120	15	75 (from 15th to 30th)

(Table continued on next page.)



Date	Description	Particulars	Particulars	Debit	Credit	Balance
1900	To Balance	By Balance	By Balance	100.00	100.00	100.00
1901	To Balance	By Balance	By Balance	100.00	100.00	100.00
1902	To Balance	By Balance	By Balance	100.00	100.00	100.00
1903	To Balance	By Balance	By Balance	100.00	100.00	100.00
1904	To Balance	By Balance	By Balance	100.00	100.00	100.00
1905	To Balance	By Balance	By Balance	100.00	100.00	100.00
1906	To Balance	By Balance	By Balance	100.00	100.00	100.00
1907	To Balance	By Balance	By Balance	100.00	100.00	100.00
1908	To Balance	By Balance	By Balance	100.00	100.00	100.00
1909	To Balance	By Balance	By Balance	100.00	100.00	100.00
1910	To Balance	By Balance	By Balance	100.00	100.00	100.00
1911	To Balance	By Balance	By Balance	100.00	100.00	100.00

Table continued

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
June (cont'd)	Apricots: (cont'd)					
	cutting for drying	700 tons	800 pounds	1,750	15	117 (from 15th to 30th)
	other dry yard work at 11 hours per green ton	700 tons	--	770 (of 10 hrs.)	15	52
	Citrus -- Oranges: picking	1,497,553 field boxes	50 field boxes	29,951	25	1,198)
	Lemons: picking	166,284 field boxes	11 field boxes	15,117	25	605)
	Grapefruit: picking	68,964 field boxes	60 field boxes	1,150	25	46)
	Grapes: sulfuring	2,397 acres†	10 acres	240	25	10
	Pears: spraying	2,481 acres†	2.25 acres	1,103	25	45
	Blackberries: picking	60,750 trays	20 trays	3,038	25	122
	Raspberries: picking	141,000 trays	10 trays	14,100	25	564
	Strawberries: picking	161,000 trays	15 trays	10,733	25	430
	Youngberries: picking	400,000 trays	20 trays	20,000	25	500
	Totals			179,355	25	7,175 man-months
July	Alfalfa: mowing	12,500 acres†	10 acres (in 10 hours)	1,250	26	49
	raking	12,500 acres†	15 acres (in 10 hours)	834 (of 10 hrs.)	26	33
	shocking	12,500†	30 acres (in 10 hours)	417 (of 10 hrs.)	26	16
	baling	12,150 tons†	4 tons (in 6 hrs.)	3,038 (of 6 hrs.)	26	117
	Beans: hoeing	4,500 acres	2.5 acres	1,800	26	70
	irrigating	13,500 acres†	5 acres (in 12 hours)	2,700 (of 12 hrs.)	26	104
	Beets (sugar): hoeing, second time	1,300 acres	3 acres	434	26	17
	Grain: harvesting by combine	7,084 acres†	6 acres	1,181	26	46

(Table continued on next page.)



Date		Description		Amount		Balance	
1940	Jan 1	Balance	100.00	100.00		100.00	
	Jan 15	Deposited	50.00	150.00		150.00	
	Feb 1	Withdrawal	25.00	125.00		125.00	
	Feb 15	Deposited	75.00	200.00		200.00	
	Mar 1	Withdrawal	30.00	170.00		170.00	
	Mar 15	Deposited	60.00	230.00		230.00	
	Apr 1	Withdrawal	40.00	190.00		190.00	
	Apr 15	Deposited	80.00	270.00		270.00	
	May 1	Withdrawal	50.00	220.00		220.00	
	May 15	Deposited	90.00	310.00		310.00	
Total				1000.00		1000.00	
1941	Jan 1	Balance	310.00	310.00		310.00	
	Jan 15	Deposited	60.00	370.00		370.00	
	Feb 1	Withdrawal	30.00	340.00		340.00	
	Feb 15	Deposited	70.00	410.00		410.00	
	Mar 1	Withdrawal	40.00	370.00		370.00	
	Mar 15	Deposited	80.00	450.00		450.00	
	Apr 1	Withdrawal	50.00	400.00		400.00	
	Apr 15	Deposited	90.00	490.00		490.00	
	May 1	Withdrawal	60.00	430.00		430.00	
	May 15	Deposited	100.00	530.00		530.00	
Total				1000.00		1000.00	

Table continued

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
July (cont'd)	Grain hay: baling	26,640 tons†	5 tons (in 12 hours)	5,328 (of 12 hrs.)	26	205
	Onions: harvesting	66,500 cwt.	20 cwt.	3,325	26	128
	Potatoes: picking up and sacking	142,800 cwt.	60 cwt.	2,380	26	92
	grading	142,800 cwt.	100 cwt.	1,428	26	55
	Seed crops: weeding, etc.	--	--	780	26	30
	Cabbage: pulling plants and transplanting	20 acres†	0.17 acre	120	26	5
	harvesting for local market	5,186 crates†	50 crates	104	26	4
	Carrots: weeding	200 acres	0.25 acre	800	26	31
	harvesting for local market	66,436 field crates	24 crates of three dozen	2,760	26	107
	Cauliflower: harvesting for local market	4,432 crates†	90 crates	50	26	2
	Celery: harvesting for carlot shipments	12,784 crates†	34 crates	376	13	29 (from 1st to 15th)
	Corn: hoeing and suckering	2,100 acres	1.0 acre	2,100	26	81
	picking and packing	315,000 lugs†	75 lugs	4,200	26	162
	Cucumbers: picking	855 tons	800 pounds	2,138	23	93 (from 4th to 31st) 4
	Tomatoes: dusting	1,176 acres	3 acres	389	26	15
	picking for market	505,120 lugs	20 packed lugs	25,256	26	972
	hoeing	3,500 acres	3 acres	1,167	26	45
	Cantaloupes: turning vines	2,000 acres	5 acres	400	26	16
	picking	120,000 crates	50 crates	2,400	26	93
	packing (in field)	60,000 crates†	150 crates	400	26	16
	Apricots: picking	1,400 tons	2,500 pounds	1,120	15	75 (from 1st-15th)
	cutting for drying	700 tons	800 pounds	1,750	15	117 (from 1st to 15th)
	other dry yard work at 11 hours per green ton	700 tons	--	770 (of 10 hrs.)	18	43 (from 1st to 20th) 80

(Table continued on next page.)





Table continued

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
July (cont'd)	Citrus -- Oranges: picking	1,739,582 field boxes	50 field boxes	34,792	26	1,339)
	Lemons: picking	161,665 field boxes	11 field boxes	14,697	26	566) 1,972
	Grapefruit: picking	103,466 field boxes	60 field boxes	1,725	26	67
	Pears: spraying	1,240 acres†	2.25 acres	552	13	43 (from 1st to 15th)
	picking	500 tons	2,000 pounds	500	10	50 (from 20th to 30th)
	grading and packing	500 tons	1 ton	500	10	50 (from 20th to 30th)
	Blackberries: picking	22,500 trays	15 trays	1,500	26	58
	Raspberries: picking	66,000 trays	7 trays	9,429	26	363
	Strawberries: picking	70,000 trays	15 trays	4,667	26	180
	Youngberries: picking	75,000 trays	15 trays	5,000	13	385 (from 1st to 15th)
	Totals			144,566	26	5,561 man-months
August	Alfalfa: mowing	12,500 acres†	10 acres (in 10 hours)	1,250 (of 10 hrs.)	26	49
	raking	12,500 acres†	15 acres (in 10 hours)	834 (of 10 hrs.)	26	33
	shocking	12,500 acres†	30 acres (in 10 hours)	417 (of 10 hrs.)	26	16
	baling	12,150 tons†	4 tons (in 6 hours)	3,038 (of 6 hrs.)	26	117
	Beets (sugar): topping and loading	32,175 tons	5 tons	6,435	26	248
	Grain: harvesting by combine	1,772 acres †	6 acres	296	13	23 (from 1st to 15th)
	Onions: harvesting	6,650 cwt.	20 cwt.	3,325	26	128
	Potatoes (Irish): picking up and sacking	71,400 cwt.	60 cwt.	1,190	13	92 (from 1st to 15th)
	grading on tables	71,400 cwt.	100 cwt.	714	13	55 (from 1st to 15th)*

(Table continued on next page.)





Table continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
August (cont'd)	Seed crops: harvesting	--	--	780	26	30
	Cabbage: pulling plants	290 acres†	0.17 acre	1,740	26	67
	and transplanting					
	harvesting for local market	4,445 crates†	50 crates	89	26	4
	Carrots: weeding	200 acres	0.25 acre	800	26	31
	harvesting for local market	77,509 field crates	24 crates of three dozen	3,230	26	125
	Cauliflower: pulling plants	412 acres†	0.20 acre	2,060	26	80
	and transplanting					
	applying fertilizer	51 acres†	3.5 acres	15	15	1 (for 15 days)
	harvesting for local market	4,432 crates†	90 crates	50	26	2
	Corn: hoeing and suckering	1,750 acres†	1.0 acre	1,750	26	68
	picking and packing	283,500 lugs†	75 lugs	3,780	26	146
	Cucumbers: picking	1,710 tons	800 pounds	4,280	26	165
	Tomatoes: dusting	1,166 acres	3 acres	389	26	15
	picking for market	528,020 lugs	20 packed lugs	26,401	26	1,016
	Cantaloupes: picking	250,000 crates	50 crates	5,000	26	193
	packing (in field)	125,000 crates†	150 crates	834	26	33
	Almonds: knocking	63 tons†	150 pounds	840	26	33
	hulling by machine	63 tons†	400 pounds	315	26	13
	Citrus -- Oranges: picking	1,527,807 field boxes	50 field boxes	30,557	26	1,176)
	Lemons: picking	115,475 field boxes	11 field boxes	10,498	26	404) 1,614
	Grapefruit: picking	51,723 field boxes	60 field boxes	863	26	34)
	Peaches: picking	1,934 tons	1,200 pounds	3,223	13	248 (from 15th to 31st)
	Pears: picking	4,000 tons	1 ton	4,000	26	154
	grading and packing	4,000 tons	1 ton	4,000	26	154
	Totals			122,993	26	4,731 man-months

(Table continued on next page.)





Table continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number or workers*
September	Alfalfa: mowing	12,500 acres†	10 acres (in 10 hours)	1,250 (of 10 hrs.)	26	49
	raking	12,500 acres†	15 acres (in 10 hours)	834 (of 10 hrs.)	26	33
	shocking	12,500 acres†	30 acres (in 10 hours)	417 (of 10 hrs.)	26	16
	baling	12,150 tons†	4 tons (in 6 hours)	3,038 (of 6 hrs.)	26	117
	Beans: piling	13,500 acres	1.5 acre (in 8 hours)	9,000 (of 8 hrs.)	26	347
	threshing	64,800 cwt.†	45 cwt. (in 8 hours)	1,440 (of 8 hrs.)	26	56
	baling bean straw	3,500 tons	3 tons	1,167	26	45
	Beets: (sugar): topping and loading	28,600 tons	5 tons	5,720	26	220
	Onions: harvesting	53,200 cwt.	20 cwt.	2,660	26	103
	Seed crops: harvesting	--	--	780	26	30
	Cabbage: pulling plants and transplanting	104 acres†	0.17 acre	624	13	48 (from 1st to 15th)
	harvesting for local market	3,704 crates†	50 crates	75	26	3
	Carrots: weeding	240 acres	0.25 acre	960	26	33
	harvesting for local market	66,436 field crates	24 crates of three dozen	2,769	26	107
	Cauliflower: pulling plants and transplanting	103 acres†	0.24 acre	1,015	13	78 (from 1st to 15th)
	hoeing	257 acres†	0.66 acre	386	26	15
	dusting	515 acres†	1/3 to 3 acres	1,030#	26	40
	applying fertilizer	206 acres†	3.5 acres	59	26	3
	harvesting for local market	7,386 crates†	90 crates	83	26	4
	Corn: picking and packing	252,000 lugs†	75 lugs	3,360	26	130
	Lettuce: thinning	527 acres	0.5 acre	1,054	26	41
	Tomatoes: picking for cannery	8,750 tons	1 ton	8,750	26	337) 1,265
	picking for market	482,160 lugs	20 packed lugs	24,108	26	928) 31.

(Table continued on next page.)





Table continued

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
September (cont'd)	Cantaloupes: picking	105,000 crates	50 crates	2,100	26	81
	packing (in field)	52,500 crates†	150 crates	350	26	14
	Apples: picking	8,800 boxes	50 boxes	176	26	8
	Almonds: knocking	63 tons †	150 pounds	840	26	33
	hulling by machine	63 tons †	400 pounds	315	26	13
	Citrus -- Oranges: picking	1,452,173 field boxes	50 field boxes	29,044	26	1,118)
	Lemons: picking	147,808 field boxes	11 field boxes	13,437	26	517) 1,746
	Grapefruit: picking	17,241 field boxes	60 field boxes	2,874	26	111)
	Grapes: picking	885 tons †	1 ton	885	26	34
	Peaches: picking	967 tons	1,200 pounds	1,612	7	231 (from 1st to 7th)
	Pears: picking (on late season only)	500 tons	1 ton	500	10	50 (from 1st to 10th)
	grading and packing (on late season only)	500	1 ton	500	10	50 (from 1st to 10th)
	Walnuts -- San Fernando Valley shaking off, picking up and hand hulling	367 tons	200 pounds**	3,670	13	283)
	shaking off, picking up only	367 tons	300 pounds**	2,447	13	189 (from 15th to 30th)
	hulling by machine	367 tons	1 1/2 tons (in 8 hrs.)	245 (of 8 hrs.)	13	19)
	Walnuts -- other districts shaking off, picking up hulling by hand	2,179 tons	200 pounds**	21,790	26	838)
	shaking off and picking up, only	2,179 tons	200 pounds**	14,527	26	559)
	hulling by machine	2,179 tons	1 1/2 tons (in 8 hours)	1,453 (of 8 hrs.)	26	56) 1,453
	Totals			167,344	26	6,436 man-months
October	Alfalfa: mowing	12,500 acres †	10 acres (in 10 hours)	1,250 (of 10 hrs.)	25	50

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(Table continued on next page.)



STATION	DATE	TIME	WIND DIRECTION	WIND SPEED (MPH)	TEMPERATURE (°F)	HUMIDITY (%)
STATION 1	10/10/60	0800	090	10	65	75
	10/10/60	1200	090	12	68	78
	10/10/60	1600	090	15	70	80
	10/10/60	2000	090	18	72	82
	10/11/60	0800	090	10	65	75
	10/11/60	1200	090	12	68	78
	10/11/60	1600	090	15	70	80
	10/11/60	2000	090	18	72	82
	10/12/60	0800	090	10	65	75
	10/12/60	1200	090	12	68	78
STATION 2	10/10/60	0800	090	10	65	75
	10/10/60	1200	090	12	68	78
	10/10/60	1600	090	15	70	80
	10/10/60	2000	090	18	72	82
	10/11/60	0800	090	10	65	75
	10/11/60	1200	090	12	68	78
	10/11/60	1600	090	15	70	80
	10/11/60	2000	090	18	72	82
	10/12/60	0800	090	10	65	75
	10/12/60	1200	090	12	68	78
STATION 3	10/10/60	0800	090	10	65	75
	10/10/60	1200	090	12	68	78
	10/10/60	1600	090	15	70	80
	10/10/60	2000	090	18	72	82
	10/11/60	0800	090	10	65	75
	10/11/60	1200	090	12	68	78
	10/11/60	1600	090	15	70	80
	10/11/60	2000	090	18	72	82
	10/12/60	0800	090	10	65	75
	10/12/60	1200	090	12	68	78
STATION 4	10/10/60	0800	090	10	65	75
	10/10/60	1200	090	12	68	78
	10/10/60	1600	090	15	70	80
	10/10/60	2000	090	18	72	82
	10/11/60	0800	090	10	65	75
	10/11/60	1200	090	12	68	78
	10/11/60	1600	090	15	70	80
	10/11/60	2000	090	18	72	82
	10/12/60	0800	090	10	65	75
	10/12/60	1200	090	12	68	78

Table continued

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
October (cont'd)	Alfalfa (cont'd)					
	raking	12,500 acres†	15 acres (in 10 hours)	834 (of 10 hrs.)	25	34
	shocking with dump rake	12,500 acres†	30 acres (in 10 hours)	417 (of 10 hrs.)	25	17
	baling	12,150 tons†	4 tons (in 6 hrs.)	3,038 (of 6 hrs.)	25	122
	Beans: piling	4,500 acres	1.5 acres (in 8 hours)	3,000 (of 8 hrs.)	25	120
	threshing	64,800 cwt.†	45 cwt. (in 8 hrs.)	1,440 (of 8 hrs.)	25	58
	baling straw	3,500 tons	3 tons	1,167	25	47
	Beets (sugar): topping and loading	10,725 tons	5 tons	2,125	25	85
	Onions: transplanting	140 acres	0.2 acre	700	25	28
	Seed crops: harvesting	--	--	750	25	30
	Cabbage: harvesting for local market	4,445 crates†	50 crates	90	25	4
	Carrots: weeding	270 acres	0.25 acre	1,080	25	43
	harvesting for local market	77,509 field crates	24 crates of three dozen	3,230	25	130
	Cauliflower: hoeing	257 acres †	0.66 acre	386	25	16
	dusting	515 acres †	0.33 to 3 acres	1,030 9	25	42
	applying fertilizer	206 acres †	3.5 acres	59	25	3
	harvesting for local market	16,249 crates†	90 crates	181	25	8
	Corn: picking and packing	94,500 lugs †	75 lugs	1,260	25	51
	Lettuce: thinning	527 acres	1.5 acre	1,054	25	43
	hoeing	527 acres	1.0 acre	527	25	22
	Tomatoes: picking for cannery	7,000 tons	1 ton	7,000	25	280
	picking for market	290,320 lugs	20 packed lugs	19,516	25	781
	Apples: picking	8,800 boxes	50 boxes	176	20	9 (for 20 days)
	Almonds: knocking	63 tons †	150 pounds	840	25	34
	hulling by machine	63 tons †	400 pounds	315	25	13

33.

(Table continued on next page.)



Date	Description	Particulars	Debit	Credit	Balance	Total
1900	Jan 1	Balance				
	Jan 2	Jan 2				
	Jan 3	Jan 3				
	Jan 4	Jan 4				
	Jan 5	Jan 5				
	Jan 6	Jan 6				
	Jan 7	Jan 7				
	Jan 8	Jan 8				
	Jan 9	Jan 9				
	Jan 10	Jan 10				
	Jan 11	Jan 11				
	Jan 12	Jan 12				
	Jan 13	Jan 13				
	Jan 14	Jan 14				
	Jan 15	Jan 15				
	Jan 16	Jan 16				
	Jan 17	Jan 17				
	Jan 18	Jan 18				
	Jan 19	Jan 19				
	Jan 20	Jan 20				
	Jan 21	Jan 21				
	Jan 22	Jan 22				
	Jan 23	Jan 23				
	Jan 24	Jan 24				
	Jan 25	Jan 25				
	Jan 26	Jan 26				
	Jan 27	Jan 27				
	Jan 28	Jan 28				
	Jan 29	Jan 29				
	Jan 30	Jan 30				
	Jan 31	Jan 31				
	Feb 1	Feb 1				
	Feb 2	Feb 2				
	Feb 3	Feb 3				
	Feb 4	Feb 4				
	Feb 5	Feb 5				
	Feb 6	Feb 6				
	Feb 7	Feb 7				
	Feb 8	Feb 8				
	Feb 9	Feb 9				
	Feb 10	Feb 10				
	Feb 11	Feb 11				
	Feb 12	Feb 12				
	Feb 13	Feb 13				
	Feb 14	Feb 14				
	Feb 15	Feb 15				
	Feb 16	Feb 16				
	Feb 17	Feb 17				
	Feb 18	Feb 18				
	Feb 19	Feb 19				
	Feb 20	Feb 20				
	Feb 21	Feb 21				
	Feb 22	Feb 22				
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	Feb 24	Feb 24				
	Feb 25	Feb 25				
	Feb 26	Feb 26				
	Feb 27	Feb 27				
	Feb 28	Feb 28				
	Feb 29	Feb 29				
	Feb 30	Feb 30				
	Mar 1	Mar 1				
	Mar 2	Mar 2				
	Mar 3	Mar 3				
	Mar 4	Mar 4				
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	Mar 31	Mar 31				
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	Jun 1	Jun 1				
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	Sep 25	Sep 25				
	Sep 26	Sep 26				
	Sep 27	Sep 27				
	Sep 28	Sep 28				
	Sep 29	Sep 29				
	Sep 30	Sep 30				
	Sep 31	Sep 31				
	Oct 1	Oct 1				
	Oct 2	Oct 2				
	Oct 3	Oct 3				
	Oct 4	Oct 4				
	Oct 5	Oct				

Table continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
October (cont'd)	Citrus -- Oranges: picking	1,406,792 field boxes	50 field boxes	28,136	25	1,126)
	Lemons: picking	133,951 field boxes	15 field boxes	8,931	25	358)
	Grapes: picking	3,540 tons†	1 ton	3,540	25	142
	Olives: picking for canning	108 tons	200 pounds	1,080	25	44
	Walnuts -- San Fernando Valley shaking off, picking up and hulling by hand	1,101 tons	200 pounds**	11,010	25	441
	shaking off and picking up only	1,101 tons	300 pounds**	7,340	25	294
	hulling by machine	1,101 tons	1 1/2 tons (in 8 hrs.)	734 (of 8 hrs.)	25	30
	Walnuts -- other districts shaking off, picking up and hulling by hand	1,089 tons	200 pounds**	10,890	25	436
	shaking off and picking up only	1,089 tons	300 pounds**	7,260	25	290
	hulling by machine	1,089 tons	1 1/2 tons (in 8 hours)	726 (of 8 hrs.)	25	29
	Totals			131,112	25	5,245 man-months
November	Onions: transplanting	140 acres	0.2 acre	700	24	30
	Seed crops: harvesting	--	--	720	24	30
	Cabbage: harvesting for local market	5,186 crates†	50 crates	104	24	5
	Carrots: weeding	230 acres	0.25 acre	920	24	39
	harvesting for local market	88,582 field crates	30 crates of three dozen	2,953	24	123
	Cauliflower: applying fertilizer	52 acres†	3.5 acres	15	24	1
	harvesting for carlot shipments	7,728 crates†	90 crates	86	24	4
	packing for carlot shipments	15,456 crates	125 crates	124	24	6

(Table continued on next page.)





Table continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
November (cont'd)	Cauliflower (cont'd): harvesting for local markets	14,772 crates†	90 crates	165	24	7
	Lettuce: hoeing	527 acres	1.0 acre	527	24	22
	cutting for carlot shipment	56,908 crates	30 packed crates	1,897	24	79
	Peas: picking	9,200 hampers	7 hampers	1,315	12	110 (from 15th to 31st)
	Tomatoes: picking for canning	1,750 tons	1 ton	1,750	12	146 (from 1st to 15th)
	picking for market and shipping	183,680 lugs	20 packed lugs	9,184	24	383
	Citrus -- Oranges: picking	559,692 field boxes	50 field boxes	11,194	24	467)
	Lemons: picking	466,519 field boxes	20 field boxes	23,326	24	) 1,439 972)
	Grapes: picking	1,475 tons†	1 ton	1,475	24	62
	Olives: picking for canning	216 tons	200 pounds	2,160	24	90
	Persimmons: picking	450 tons	1,800 pounds	500	18	28 (from 1st to 20th)
	Totals			59,115	24	2,464 man-months
December	Cabbage: harvesting for local market	6,668 crates†	50 crates	134	22	6
	Carrots: weeding	180 acres	0.25 acres	720	22	33
	harvesting for local market	88,582 field crates	30 crates of three dozen	2,953	22	135
	Cauliflower: cutting for carlot shipment	134,462 crates†	90 crates	1,495	22	68
	packing for carlot shipment	268,924 crates	125 crates	2,152	22	98
	harvesting for local market	20,683 crates†	90 crates	230	22	11 8
	Celery: transplanting to field	14 acres†	0.25 acre	56	5	12 (from 25th 31st)

(Table continued on next page.)





Table continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
December (cont'd)	Celery (cont'd.): harvesting for carlot shipment	25,568 crates†	34 crates	752	22	35
	Lettuce: cutting for carlot shipment	72,559 crates	30 packed crates	2,419	22	110
	Peas: picking	34,960 hampers	7 hampers	4,995	22	227
	Citrus -- Oranges: picking	121,014 field boxes	60 field boxes	2,017	22	92)
	Lemons: picking	711,326 field boxes	25 field boxes	28,453	22	1,294)
	Grapes: pruning	240 acres†	0.75 acre	320	11	29 (from 15th to 31st)
	Olives: picking for canning	108 tons	200 pounds	1,080	18	60 (from 1st to 20th)
	Pears: pruning	620 acres†	0.25 acre	2,480	22	113
	Totals			50,256	22	2,285 man-months

\*On a monthly basis unless noted.

†Estimated portion of job done by seasonal workers.

‡Shipments of celery at the "peak" were about 25 cars daily, which indicates a need for 250 workers at that time for celery harvest.

§Cucumber picking usually requires about one picker per acre continuously during harvest season, which would indicate that about 500 workers were needed for this in 1935.

¶Dusting of cauliflower is done 1 to 6 times, and usually averages 36 hours of labor per acre for the season, about half in September and half in October.

|| Tomato picking requires about 1 man for each 5 to 7 acres steadily for the season, which would indicate a need for 1,000 to 1,400 pickers.

\*\* These figures represent a "man-days" work on walnut harvesting. Actually, however, this work is done by family groups, including women and children, often working short hours, and therefore the actual daily output per worker is much less than indicated, and the number of workers required much greater.





TABLE 4

Summary of Seasonal Labor Needs by Months  
Los Angeles County  
1935

Month	Required man-days of seasonal labor	Available work days	Required man-months of seasonal labor
January	76,613	20	3,831
February	77,465	23	3,368
March	76,591	24	3,192
April	109,270	24	4,553
May	182,352	26	7,014
June	179,355	25	7,175
July	144,566	26	5,561
August	122,993	26	4,731
September	167,344	26	6,436
October	131,112	25	5,245
November	59,115	24	2,464
December	50,256	22	2,285
Total	1,377,032	--	55,855



TABLE 4

Summary of Seasonal Labor Needs by Month  
Los Angeles County  
1938

Month	Required non-days of seasonal labor	Available work days	Required non-days of seasonal labor
January	78,818	20	2,881
February	77,488	22	2,788
March	76,881	24	2,198
April	108,270	24	4,888
May	182,328	26	7,014
June	172,328	26	7,178
July	144,888	26	5,581
August	152,328	26	4,731
September	167,344	26	6,488
October	137,112	26	5,248
November	89,118	24	3,488
December	80,328	22	2,388
Total	1,247,032	—	58,888



